Grading rules

Attendance (30 points)

- No unexcused absences: 30 points
- 1 absence: 20 points
- 2 absences: 10 points

More than 2 unexcused absences: NK.

Capstone project (70 points)

The task is to solve a machine learning problem with a strong emphasis on the implementation of Explainable AI (XAI) techniques to interpret and analyze the results of a black-box model. The specific problem topic is of your choice, but it is important that the dataset you use contains meaningful, understandable features (e.g. if you take tabular data), as interpretability is a key component of this project. You will need to focus on applying XAI methods to explain the model's decision-making process, ensuring that your analysis is accessible and actionable for non-technical stakeholders.

Work submission

1. **Codes**: the codes should be stored and submitted as a GitHub repository. The obligatory part of model submission is a report presenting the whole modelling pipeline in a form of a code markdown file (e.g. .ipynb or .Rmd).

2. **Presentation**: the results of your work should be presented during the final class in the form of a presentation. This pitch should focus on communicating the model's impact and the business value derived from its insights, rather than diving deeply into technical details. Be sure to explain the interpretability of the model in a way that demonstrates how the insights can inform business decisions.

The projects should be delivered in pairs. Make sure to form the teams and **send the names of the group members by email by April 6**.

Deadline for project delivery:

Presentations: 03.06.2025

Code submission: 06.06.2025 (EOD)

- **Machine Learning Model (45 points)**:

  - Report
  - Correctness of the model development
  - Interpretation of model results with XAI methods presented in class, selection of appropriate techniques
  - *Additional plus (optional, 5 points)*: solving Machine Learning problem with implementation of XAI methods, not covered in class

- **Git/GitHub (10 points)**:

    - Clear repository structure (e.g. folders for code, data, proper use of README, documentation, and .gitignore)
    - Commit history (participation of both group members, meaningful commit messages, balanced workload distribution)
    - Leveraging branching
    - *Additional plus (optional, 2 points)*: use of GitHub Projects for task management and tracking

- **Presentation (15 points)**:

    - Logical structure of the presentation, explanation of insights retrieved with XAI tools
    - The ability to translate technical insights/model into potential business/research value and communicate with a non-technical audience
    - Confidence, clarity, and engagement in delivery

At max, 77 points could be earned from capstone project (70+7 bonus points).

Grading scale

Points (%)	Grade
[0,50)	2
[50,60)	3
[60, 70)	3.5
[70, 80)	4
[80, 90)	4.5
[90, 100)	5
100+	5!